

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> :

C07H 21/04, C12N 15/63, 1/21, 15/00

A1

(11) International Publication Number:

WO 00/15651

(43) International Publication Date:

23 March 2000 (23.03.00)

(21) International Application Number: PCT/US99/20948

(22) International Filing Date: 14 September 1999 (14.09.99)

(30) Priority Data:

60/100,137

14 September 1998 (14.09.98) US

(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application

US

60/100,137 (CON)

Filed on

14 September 1998 (14.09.98)

(71) Applicant (for all designated States except US):

DANA-FARBER CANCER INSTITUTE [US/US];  
44 Binney Street, Boston, MA 02115 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): DUKE-COHAN,  
Jonathan, S. [IL/US]; 93 Parker Avenue, Newton High-  
lands, MA 02161 (US). SCHLOSSMAN, Stuart, F.  
[US/US]; 1 Fox Place, Newton Centre, MA 02195 (US).

(74) Agent: FRASER, Janis, K.; Fish & Richardson P.C., 225  
Franklin Street, Boston, MA 02110-2804 (US).

(81) Designated States: CA, JP, US, European patent (AT, BE, CH,  
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
PT, SE).

**Published**

*With international search report.*

*Before the expiration of the time limit for amending the  
claims and to be republished in the event of the receipt of  
amendments.*

(54) Title: REGULATION OF IMMUNE RESPONSES BY ATTRACTIN

(57) Abstract

The invention features attractin polypeptides and nucleic acids encoding them. The attractin polypeptides are useful for enhancing immune responses.